## Claims

## What is claimed is:

- 1 1. A computer implemented user interactive method for
- 2 graphically displaying the proportion of a total value of
- 3 a time dependent variable contributed by each of a set of
- 4 elements comprising the steps of:
- 5 displaying the proportion contributed by each
- 6 element as an area within an ordered set of areas under a
- 7 line representative of the total value of said time
- 8 dependent variable;
- 9 enabling the user to interactively select one of
- 10 said set of areas; and
- 11 performing a selected operation selected from the
- 12 group consisting of hiding the selected area, displaying
- 13 the selected area and reordering the position of the
- 14 selected area within said ordered set responsive to said
- 15 user selection.
  - 1 2. The method of claim 1 wherein said ordered set of
  - 2 areas under said line comprises a stacked area graph
  - 3 formed by said ordered set of areas under said line.
  - 1 3. The method of claim 2 wherein:
  - the selected operation performed is hiding the
  - 3 selected area; and
  - 4 further including the step, responsive to said
  - 5 hiding step, of reforming at least one of the remaining
  - 6 displayed areas so as to represent the resulting change
  - 7 of said reformed area within said ordered set of stacked
  - 8 areas.

- 1 4. The method of claim 2 wherein:
- 2 the selected operation performed is displaying a
- 3 selected undisplayed area; and
- further including the step, responsive to said step
- 5 of displaying, of reforming at least one of the other
- 6 displayed areas so as to represent the resulting change
- 7 of said reformed area within said ordered set of stacked
- 8 areas.
- 1 5. The method of claim 2 wherein:
- the selected operation performed is reordering the
- 3 position of the selected area within said ordered set;
- 4 and
- further including the step, responsive to said step
- 6 of reordering the position of the selected area within
- 7 said ordered set, of reforming at least one of the other
- 8 displayed areas so as to represent the resulting change
- 9 of said reformed area within said reordered set of
- 10 stacked areas.
  - 1 6. The method of claim 2 further including the step of:
  - displaying a plurality of icons each representative
  - 3 of one of said areas whereby the user may select one of
  - 4 said areas by selecting the icon representative of the
  - 5 selected area.
  - 1 7. The method of claim 2 further including the step of:
  - displaying a plurality of icons each representative
  - 3 of one of said areas whereby the user may reorder the
  - 4 position of the selected area by reordering the position
  - 5 of the selected icon representative of the selected area.

- 1 8. A data processor controlled user interactive display
- 2 system for graphically displaying the proportion of a
- 3 total value of a time dependent variable contributed by
- 4 each of a set of elements comprising:
- 5 means for displaying the proportion contributed by
- 6 each element as an area within an ordered set of areas
- 7 under a line representative of the total value of said
- 8 time dependent variable;
- 9 means for enabling the user to interactively select
- 10 one of said set of areas; and
- means for performing a selected operation selected
- 12 from the group consisting of hiding the selected area,
- 13 displaying the selected area and reordering the position
- 14 of the selected area within said ordered set responsive
- 15 to said user selection.
- 1 9. The display system of claim 8 wherein said ordered
- 2 set of areas under said line comprises a stacked area
- 3 graph formed by said ordered set of areas under said
- 4 line.
- 1 10. The display system of claim 9 wherein:
- the selected operation performed is hiding the
- 3 selected area; and
- further including means, responsive to said hiding
- 5 operation, for reforming at least one of said remaining
- 6 displayed areas so as to represent the resulting change
- 7 of said reformed area within said ordered set of stacked
- 8 areas.

- 1 11. The display system of claim 9 wherein:
- 2 the selected operation performed is displaying a
- 3 selected undisplayed area; and
- 4 further including means, responsive to said
- 5 displaying of said undisplayed area, for reforming at
- 6 least one of the other displayed areas so as to represent
- 7 the resulting change of said reformed area within said
- 8 ordered set of stacked areas.
- 1 12. The display system of claim 9 wherein:
- the selected operation performed is reordering the
- 3 position of the selected area within said ordered set;
- 4 and
- further including means, responsive to said means
- 6 for reordering the position of the selected area within
- 7 said ordered set, for reforming at least one of the other
- 8 displayed areas so as to represent the resulting change
- 9 of said reformed area within said reordered set of
- 10 stacked areas.
  - 1 13. The display system of claim 9 further including a
  - 2 plurality of icons on said display each representative of
  - 3 one of said areas whereby the user may select one of said
  - 4 areas by selecting the icon representative of the
  - 5 selected area.
  - 1 14. The display system of claim 9 further including:
  - a plurality of icons on said display each
  - 3 representative of one of said areas; and
  - 4 means enabling the user to interactively reorder the
  - 5 position of the selected area by reordering the position
  - 6 of the selected icon representative of the selected area.

- 1 15. A computer program having code recorded on a
- 2 computer readable medium for graphically displaying the
- 3 proportion of a total value of a time dependent variable
- 4 contributed by each of a set of elements in a computer
- 5 controlled user interactive display system comprising:
- 6 means for displaying the proportion contributed by
- 7 each element as an area within an ordered set of areas
- 8 under a line representative of the total value of said
- 9 time dependent variable;
- means for enabling the user to interactively select
- 11 one of said set of areas; and
- means for performing a selected operation selected
- 13 from the group consisting of hiding the selected area,
- 14 displaying the selected area and reordering the position
- 15 of the selected area within said ordered set responsive
- 16 to said user selection.
  - 1 16. The computer program of claim 15 wherein said
  - 2 ordered set of areas under said line comprises a stacked
  - 3 area graph formed by said ordered set of areas under said
  - 4 line.
  - 1 17. The computer program of claim 16 wherein:
  - the selected operation performed is hiding the
  - 3 selected area; and
  - 4 further including means, responsive to said hiding
  - 5 operation, for reforming at least one of said remaining
  - 6 displayed areas so as to represent the resulting change
  - 7 of said reformed area within said ordered set of stacked
  - 8 areas.

- 1 18. The computer program of claim 16 wherein:
- the selected operation performed is displaying a
- 3 selected undisplayed area; and
- 4 further including means, responsive to said
- 5 displaying of said undisplayed area, for reforming at
- 6 least one of the other displayed areas so as to represent
- 7 the resulting change of said reformed area within said
- 8 ordered set of stacked areas.
- 1 19. The computer program of claim 16 wherein:
- the selected operation performed is reordering the
- 3 position of the selected area within said ordered set;
- 4 and
- further including means, responsive to said means
- 6 for reordering the position of the selected area within
- 7 said ordered set, for reforming at least one of the other
- 8 displayed areas so as to represent the resulting change
- 9 of said reformed area within said reordered set of
- 10 stacked areas.
  - 1 20. The computer program of claim 16 further including a
  - 2 plurality of icons on said display each representative of
  - 3 one of said areas whereby the user may select one of said
  - 4 areas by selecting the icon representative of the
  - 5 selected area.
  - 1 21. The method of claim 2 wherein said selected
  - 2 operation is performed by morphing the displayed stacked
  - 3 area graph through an animated display sequence of
  - 4 stacked graphs.

- 1 22. The display system of claim 9 wherein said means for
- 2 performing said selected operation, perform the operation
- 3 by morphing the displayed stacked area graph through an
- 4 animated display sequence of stacked graphs.
- 1 23. The computer program of claim 16 wherein said means
- 2 for performing said selected operation, perform the
- 3 operation by morphing the displayed stacked area graph
- 4 through an animated displayed sequence of stacked graphs.